AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-4 (Cancelled).

5. (Previously Presented) The graphics system of claim 25, wherein the graphics coprocessor further includes a graphics pipeline, and wherein the graphics pipeline is operable to use data copied out to the main memory texture buffer area in a subsequent rendering process.

6. (Previously Presented) The graphics system of claim 25, wherein the embedded frame buffer may be programmably configured to store pixel data in either RGB color format or YUV color format.

7. (Previously Presented) The graphics system of claim 25, wherein the copy-out pipeline selectively converts the data from the embedded frame buffer to either a YUV display format or an RGB texture format during a copy out of pixel data to the external frame buffer in main memory.

Claims 8-10 (Canceled).

11. (Previously Presented) The graphic system of claim 7, wherein the copy-out pipeline converts the pixel data to a YUV display format when the copy-out pipeline is operated to transfer the pixel data to said display buffer area .

Claims 12-16 (Canceled).

17. (Previously Presented) The method of claim 26 wherein the YUV display format is a YUV 4:2:2 format.

Claim 18 (Canceled).

19. (Previously Presented) The method of claim 26, further including performing a scaling operation on the data prior to writing the data to the main memory of the graphics system.

20. (Previously Presented) The method of claim 26, further including performing a gamma correction operation on the data prior to writing the data to the main memory of the graphics system.

21. (Previously Presented) The method of claim 26, further including performing an anti-aliasing operation on the data prior to converting the image data to YUV format and writing the image data to the frame buffer located in main memory of the graphics system.

22. (Previously Presented) The method of claim 26 further including performing a de-flickering operation on the data prior to converting the image data to YUV format and writing the image data to the external frame buffer in main memory of the graphics system.

Claim 23 (Canceled).

24. (Previously Presented) In a graphics system including a main processor and a pipelined architecture graphics coprocessor having an embedded frame buffer memory, the embedded frame buffer memory instantiated on a same semiconductor chip substrate as at least a portion of a graphics processing pipeline, and an external texture buffer residing within a main memory of said graphics system, said main memory being configured on one or more semiconductor chips separate from a semiconductor chip containing said graphics processing pipeline, a pixel data copy-out process for copying pixel data from said embedded frame buffer memory to said external texture buffer wherein said copy-out process performs predetermined pixel data conversion and/or filtering operations during transferring of pixel data from said embedded frame buffer to said external texture buffer, comprising:

selecting a sub-region of pixels in the embedded frame buffer as a source for a pixel data copy operation;

selecting a destination in the external texture buffer in said main memory for the pixel data copy operation; and

creating texture tiles within said external texture buffer by converting a selected rectangular sub-region of pixels from a display data format to one of a plurality of texture data formats during a pixel data transfer operation of pixel data from said embedded frame buffer to said external texture buffer.

25. (Previously Presented) A graphics system including a main processor, an associated graphics system main memory and a separate graphics coprocessor chip having graphics processing pipeline circuitry and an on-chip embedded frame buffer memory, said graphics system main memory being separate memory that is not embedded on a same graphics coprocessor chip as graphics processing pipeline circuitry, comprising:

a programmable pixel data post-processing copy-out pipeline that selectively converts pixel data from one image format to another during a reading and transfer of the data from the embedded frame buffer to the separate non-embedded main memory of said graphics system, wherein the copy-out pipeline is operable to selectively transfer the data to either a display buffer area or a texture buffer area within said separate non-embedded main memory and wherein the copy-out pipeline converts the data to a display format if the data is transferred to the display buffer area and converts the data to a texture format if the data is transferred to the texture buffer area.

26. (Previously Presented) A method of reducing an amount of storage space required for storing image data in main memory in a graphics processing system while increasing main

memory bandwidth when displaying image data from a frame buffer located in said main memory , said graphics processing system including a graphics processing chip having an embedded first frame buffer memory and a separate non-embedded second frame buffer in a main memory provided separate from said graphics processing chip, comprising:

storing RGB format image data in said first embedded frame buffer on the graphics processing chip;

initiating a copy out operation for reading out said image data from the first embedded frame buffer and transferring image data to the separate non-embedded second frame buffer located in the main memory of the graphics processing system;

converting said image data from an RGB format to a YUV display format during the copy out operation after reading out said image data from the embedded first frame buffer and prior to writing said image data to the non-embedded second frame buffer ; and

writing the converted image data to the non-embedded second frame buffer located in the main memory of the graphics system, wherein a total amount of memory storage space occupied by said converted image data in said second frame buffer is less than an amount of memory storage space occupied by said RGB format image data in said first frame buffer, and wherein main memory bandwidth is increased when displaying image data from said second frame buffer.

27. (Previously Presented) The graphics system of claim 25 wherein said programmable pixel data post-processing copy-out pipeline comprises:

a programmable pixel filter section said programmable pixel filter being selectively operable in either an antialias mode or a deflicker mode;

a gamma correction section, said gamma correction section providing a predetermined correction to pixel color valves; and

an RGB to YUV conversion section.

28. (Previously Presented) The graphics system of claim 27 wherein said programmable filter comprises a programmable 7-tap vertical filter.

29. (Previously Presented) The graphics system of claim 25 wherein said programmable pixel data post-processing copy-out pipeline comprises:

a Y-scale section for performing a vertical scaling of pixel data when the copy-out pipeline is operated to transfer the pixel data to said display buffer area.

30. (Previously Presented) The graphics system of claim 26 wherein four pixels in a scan-line are converted in one clock cycle.

31. (Previously Presented) The graphics system of claim 25 wherein said programmable pixel data post processing copy-out pipeline comprises:

a texture format section for converting pixel data to a predetermined texture data format and organizing the converted data into a plurality of texture tiles

32. (Currently Amended) The graphics system of claim ~~25~~ 24 wherein the selected sub-region of pixels in the embedded frame buffer contains MPEG data for creating streaming video images for superimposing as texture on a rendered graphic object.